

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant : Dani Markbreit
Appl. No. : 10/593,718
Filed : 21 September 2006
Title : KEY COMBINATION ELEMENT IN KEY BLANK AND KEY
Group Art Unit: 3673
Examiner : Kristina Rose Fulton
Docket No. : 1412MUL-US
Honorable Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REMARKS

Applicant has carefully studied the outstanding Official Action mailed on November 26, 2008. This response is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application are respectfully requested.

Claims 1-8 stand objected because claims 5-8 are directed to a key and claims 1-4 are directed to a key blank. Examiner says the “specification discloses that a key and key blank are used interchangeably. The examiner believes claims 1-4 and 5-8 are the same.”

Applicant respectfully traverses this objection and wishes to point out the difference. First, Applicant is unaware of any place in the specification that “discloses that a key and key blank are used interchangeably”. Instead, at the beginning of the detailed description it says “Either one or both of first and second side surfaces 14 and 16 may have key cuts 20 formed thereon that define a key combination surface, thereby forming a key 22...The key blank 10 (which became key 22) may have a key head 24. The key 22/key blank 10 (herein simply “key 22”) may define a reversible key, wherein both planar surfaces 14 and 16 constitute key combination surfaces.”

Please note that key blank 10 refers to the object before the key cuts are formed and it becomes key 22 when the key cuts are formed thereon. This distinction is clearly defined in the claims as well: In claim 1, “at least one of said first and second side surfaces [are] *cuttable to form key cuts* that define a key combination surface”, whereas in claim 5, “at least one of said first and second side surfaces [are] *formed with key cuts* that define a key combination surface”.

Claims 1-3 and 5-7 stand rejected under 35 USC §102(b) as being anticipated by Botteon (US 5724841).

Claims 4 and 8 stand rejected under 35 USC §103(a) as being unpatentable over Botteon.

Examiner states Botteon has a “key combination element [that] has inherent energy for applying an urging force against the lock combination element”, and refers to col. 3, lines 28-29.

This is respectfully traversed. We quote here the full passage, lines 26-39:

“During the insertion of the key into the seat 28 of the plug 14, when the end of the shank 8 or rather the movable member 12 pivoted to it encounters the cylindrical portion of the first pin 20 (see FIG. 3), it is deviated towards the recess 30, so that the end part of its inclined surface 15 enters it to engage the frusto-conical end of the pin. At this point, further insertion of the key 2 causes the frusto-conical end of the first pin 20 to slide along the inclined surface 15 of the advancing movable member 12, with consequent axial sliding of the pin along the respective cylindrical recess 18. This sliding of the pin 20 releases the seat 28 and enables the key 2 to be further inserted until the movable member 12 encounters the next pin 20 to repeat the same operational sequence.”

The meaning of the phrase “key combination element has inherent energy for applying an urging force against the lock combination element” has been clearly defined in the instant specification, page 4, second paragraph: “Key combination element 26 has inherent potential energy or inherent energy for short, meaning that it has innate material properties for storing potential energy for applying an urging force against a lock combination element, as is described further below. In other words, the key combination element 26 is itself a biasing element operative to apply an urging force against the lock combination element. The key combination element 26 may apply the urging force against the lock combination element without help from any other force (such as from some spring) being applied to key combination element 26.”

Movable element 12 of Botteon does not have inherent energy. Movable element 12 of Botteon is a *rigid element that pivots freely* about a pin in the shank of the key. Being rigid it has no “springiness”. Because it is rigid and pivots freely, it is not a biasing element, it does not store any potential energy and it cannot apply the urging force against the lock combination element without help from any other force. On the contrary, “during insertion of the key into the seat 28 of the plug 14, when the end of the shank 8 or rather the movable member 12 pivoted to it encounters the cylindrical portion of the first pin 20 (see FIG. 3), it

is *deviated towards the recess 30*, so that the end part of its inclined surface 15 enters it to engage the frusto-conical end of the pin”. Not only does movable element 12 not apply any biasing force on the pins of the lock, on the contrary, the first pin 20, by virtue of it being pushed by a spring, urges the movable element 12 to deviate towards the recess 30. In other words, movable element 12 is urged by pin 20; movable element 12 does not urge pin 20. Furthermore, since movable element 12 pivots freely it cannot apply any force against the lock combination element without help from any other force. On the contrary, it is the insertion of the key that pushes the pins. Quoting from the above passage in Botteon: “further insertion of the key 2 causes the frusto-conical end of the first pin 20 to slide along the inclined surface 15 of the advancing movable member 12”.

Thus, it is respectfully submitted that Botteon does not teach or suggest the claimed invention. Accordingly all claims of record are deemed allowable. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
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